Memo

Quality Control

Work Order ID 108742 October-29-13 9:54:28 AM	B 108742	*108	742*					Page 1
Item ID: D2934 Revision ID: Item Name: Saddle Spacer Start Date: 10/29/13 Start Qty: 24 Required Date: 10/29/13 Req'd Qty: 24	, - -	Accept	*N900040 Cust Item ID: Customer:	100*	So	etup Start Stop	ı V.	S1* S2*
Reference: Approvals: Process Plan:ML5 QC:	Date: /3-//-0 (Date:		R	un Start Stop		R1* R2*
Sequence ID/ Operation Work Center ID Description		Set Up/ Run Hours	Tool ID Tool #	Plan A Code Q	ccept ty		Reject Number	Insp. Stamp
Draw Nbr Revision Nbr								
D2934 Rev B								
	0	0.00 0.00 3 Prog Rev:	B 2-		24	_0_		Jm13-12
QC2-Inspect parts *110	s off machine FAI/FAIB	0.00			24			Jm13-12
120 QC8- Inspect parts *120* OC Mem		0.00 0.00 0.00	•		Y _			(81) ;

											DQA	: Date	:
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE			
									·		QA Closed	: Date	•
Work Ord	o ŕ .					DISPOSITION				AGAINST DE	PARTMENT	T/PROCESS	
WOIK OIG	٠٠٠.					Rework	٦l		Skid-tube	Crosstube	1	Water Jet	Engineering
Part I	No.					Scrap	1		Machining	Small Fab	Pro	od. Eng. Coor.	Quality
	•					Use-as-is	1		noforming	Finishing	-1	ore/Packaging	Other
NCR	No.					Work Order Update]		Large Fab	Composite		Supplier	
													
Root						ption of work order update		Initial		tion	Sign &		
Cause	,	Date	Step	Qty	•	or Non-conformance	Cr	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	Щ												
Equip/Tooling	Щ									·			
Operator											ļ		
Material	Ш												
Setup	Щ							1			1		
Other	Ш				ł								
Process	Ш			<u> </u>	ĺ		1						
Supplier							į						
Training			ł								1		
Unapproved			<u> </u>										
							FAUL	LT CATE	GORY				
Land	ing (1			r-	General	_	7		_	7	_	7
		Bending			<u> </u>	Bend	\perp	Grain		<u> </u>	Ovalized		Pressure/Forced
		Centre N	ot Concer	ntric to	o/s	BOM/Route	L	Hardwa		_	Over/Unde	r tolerance	Temperature/Cure
		Cracks				Broken/Damaged		4 '	on incomplete		Part Incorre	⊢	Weld
		Crushed/	'Crimped			Burrs	L	Instruct	ions Incomplete	/Unclear	Part Lost/M	1issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance		Part Moved	t	
		Heat Tre	at			Countersink	L	Mislabe	eled		Positioned	Wrong	_
	Inspection Strip in Tube					Cut Too Short		Misread	d		Power Loss	/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord		8742		*1087	742*		,				Page	2
Item ID: Revision ID: Item Name:	D2934 Saddle Spacer			Accept	*N9000	40	100)* s	etup Start Stop	ı VI ,	S1*	
Start Date: Required Date:	10/29/13 10/29/13	Start Qty: 24.00 Req'd Qty: 24.00	*24* *24*		Cust Item ID: Customer:					10.		
Approvals:		n:	Date:		Date Date			R	un Start	[7]	R1* R2*	
Sequence ID/ Work Center II 130 *130* HandFinish Hand Finishing	D	Operation Description Chemical Conversion Conversion	at per QSI005 4.1	Set Up/ Run Hours 0.00	Tool ID	Fool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
*140 *140* QC Quality Control		QC7-Inspect Chemical Co	onversion Coat	0.00 B DAS 27 9.89 0.00 B D			(204 J	and solvers are solvers and solvers are solvers and solvers and solvers and solvers are solvers and solvers and solvers and solvers are solvers are solvers are solvers and solvers are solvers are solvers are solvers are solvers and solvers are so			_
150 *150* Packaging Packaging		Identify as per dwg & Sto	ock Location: Study	0.00				13/12	16 (24/	DAS 32 9-89	

											DQA:	Date	•
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPD	ATE	QA Closed:	 Date:	
						DISPOSITION			 	AGAINST DE			-
Work Orde	er: _					DISPOSITION	_			AGAINSI DE	PARTIVICIVI,	/PROCE33	_
Part I	•					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root	f	•			Descri	ption of work order update	T	Initial	Actio	n	Sign &		
Cause		Date	Step	Qty	_	or Non-conformance	Cr	nief Eng	Descrip	otion	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
							FAUI	LT CATE	GORY				
Landi		Bear Bending Centre N Cracks Crushed/ Cuffs Heat Trea Inspectio	Crimped at		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misread	on Incomplete ions Incomplete/Un nance led	clear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
		Ripples in	n Bend			Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde October-29-13		8742		*108742*								Page 3	ř
Item ID: Revision ID: Item Name:	D2934 Saddle Spacer		7,777, 	Accept	*N900	040	100	*	Setup	Start Stop		S1*	
Start Date: Required Date: Reference:	10/29/13 10/29/13	Start Qty: 24.00 Req'd Qty: 24.00	*74* *74*		Cust Item I Customer:	D:							
Approvals:	Process Pla	in:	Date:	Tooling: SPC (Y/N):		ate:			Run	Start Stop	*N *N	R1* R2*	
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accep: Qty	t Rej Qty		Reject Number/	Insp. Stamp	^
*160 *160*		QC21- Final Inspection -	Work Order Release	0.00						13/	12/	18 9	

Memo

Quality Control

MF 13-12-18.

		•									DQA:	Date:	Α .
NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE										DATE	QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	-	1				Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	\Box												
Operator													
Material								:					
Setup							1						
Other													
Process			ļ										

Landing Gear General Bend Grain Ovalized Pressure/Forced Bending BOM/Route Centre Not Concentric to O/S Over/Under tolerance Temperature/Cure Hardware Broken/Damaged Cracks Weld Inspection Incomplete Part Incorrect Crushed/Crimped Instructions Incomplete/Unclear Wrong Stock Pulled Burrs Part Lost/Missing Cuffs Maintenance Contamination Part Moved Mislabeled Heat Treat Countersink Positioned Wrong Inspection Strip in Tube Power Loss/Surge Other Cut Too Short Misread Drill Holes Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Turning Sequence Finish Out of Sequence

Outside Dimensions

FAULT CATEGORY

Wave/Twist in Tube

Folio

Supplier Training Unapproved

Picklist Print

October-29-13 9:54:28 AM

Work Order ID:

108742

Parent Item:

D2934

Parent Item Name:

Saddle Spacer

Comments:

IPP A00.06.06New IssueEC

IPP Rev:B Now 6061-T6 06-06-23 JLM

Start Date: 10/29/13

Required Date: 10/29/13

Start Qty: 24.00

Required Qty: 24.00

	III KCV.B NOW	3001-10 00-00-2	2 317141										
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit		Qty Issued	Date Issued	Status
M6061T6S.080 6061-T6 .080 Sheet		Purchased	No			100	sf	492.5680	0.0318	, 0.8033688		Jr	113.12-6
				Location		Loc Oty	<u>Lo</u>	c Code					
				MAT021		492.568							
				12581	2	32.75							
				m126	309	352.5							
				m126	350	107.318			126	350			

											DQA.	D	ite.	
NCR: Ye	s / No				WORK ORDER NON-C	COI	NFOR	MANCE / UP	DATE		QA Closed:		ite:	
					<u> </u>					_	-	<u> </u>	Tte.	
Work Order:					DISPOSITION				AGAINST	DE	PARTMENT	/PROCESS		
		•			Rework Skid-tube Crosstube					Water Jet		Engineering		
Part No					Scrap]	1	Machining	Small Fab		-1	d. Eng. Coor.	\vdash	Quality
NCR No					Use-as-is	1	Thern	noforming	Finishing		Rec/Sto	re/Packaging	_	Other
NCR No	NCR No.				Work Order Update	J		Large Fab	Composite]	Supplier		
Root	T	Ī		Descri	ption of work order update	T	Initial	Ac	ction	_	Sign &			
Cause	Date	Step	Qty		or Non-conformance		nief Eng		cription		Date	Verificatio	n	QC Inspector
Doc/Data		1		· <u>-</u>				1. //21. 5	·					·
Equip/Tooling														
Operator														
Material														
Setup	_													
Other													İ	
Process		Ì												
Supplier						1								
Training	_					1								
Unapproved														
						AUI	LT CATE	GORY						
Landing	Gear				General		-		,		7		_	1
	Bending			<u> </u>	Bend	L	Grain				Ovalized			Pressure/Forced
1	_	lot Conce	ntric to	o/s	BOM/Route	<u></u>	Hardwa			—	Over/Under	tolerance	\vdash	Temperature/Cure
	Centre Not Concentric to O/S Cracks			[Broken/Damaged	1	Inspect	ion Incomplete		ı	Part Incorre	ct	1	Weld

Instructions Incomplete/Unclear

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Part Moved

Wrong Stock Pulled

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Burrs

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	54F801
Description: Saddle Spacer	Part Number:	D2934
Inspection Dwg: D2934 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.475	+/-0.010	6.475	-		J	Jkmo1
0.407	+/-0.010	0.407"	-		ν	
0.250	+0.030/-0.000	0.263"	_			
R0.30	+/-0.030	0.3011	-		ŘĻ	
Ø0.257	+0.005/-0.000	0.259"	_		ν	
0.784	+/-0.010	0.784"	_		ν	
0.826	+/-0.010	0.826"	_		V	
R0.36	+/-0.030	0.36"	_		RG	
0.080	+/-0.010	0.080"	_		ν	
	-					
			DAS			

Measured by: JM Audited by: 9-89 Prototype Approval: N/A

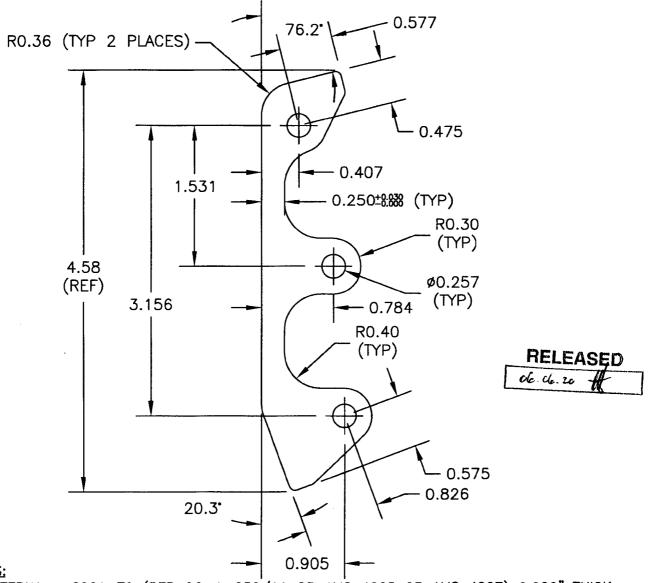
Date: 13-13-9

Audited by: 9-89 Prototype Approval: N/A

Rev	Date	Change	Revised by	Approved
Α	04.08.12	New Issue	KJ/JLM	
В	06.06.23	Dwg Rev. changed	KJ/JLM	
С	08.08.27	0.080 dimension added	KJ/DD A	<i>X</i>



DESIGI	1	DRAWN BY	DART AEROSPACE US	SA, INC.
CHECK		APPROVED 4//	DRAWING NO.	REV. B
	PH	大	D2934	SHEET 1 OF 1
DATE			TITLE	SCALE
06.0	5.29		SADDLE SPACER	1:1
Α		99.11.02	NEW ISSUE	
В		06.05.29	ADD 6061-T6 MATERIAL	



NOTES:

1) MATERIAL: 6061-T6 (PER QQ-A-250/11 OR AMS 4025 OR AMS 4027) 0.080" THICK __ (REF DART SPEC M6061T6S.080)

OR

5052-H32/H34 (PER QQ-A-250/8 OR AMS 4016) 0.080" THICK (REF DART SPEC M5052H32S.080)

- 2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 5) ALL DIMENSIONS ARE IN INCHES

Copyright © 1999 by DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.